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IN REPLY  
 REFER TO: J-DO  
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June 9, 1977

Admiral Stansfield Turner  
 Director  
 Central Intelligence Agency  
 Washington, DC 20505

Dear Stan,

Thank you very much for your thoughtful comments on my discussion of "Why Not Stop Testing?"

You raised the point that scientific inquiry does not always require experimentation. You are, of course, correct. While you pointed out gerontology, astronomy is another example. What they both require, however, are observations or data. Scientific inquiry without data would not long be scientific inquiry. Full scale nuclear "tests" provide us with the only data that we in nuclear weapons research have on many of the detailed features of weapon performance. The non-nuclear testing that we do can not provide the data that would be necessary to preserve a nuclear weapons science indefinitely.

With regard to your question on extrapolation from existing data I would say that yes it can be done to some degree at least. Just what could or could not be done with confidence is a matter of judgment, and it is just that judgment that we could eventually lose following a CTBT. Many of my colleagues assert that we could not safely extrapolate at all. Where I disagree with that assessment I do feel that we would have to be extremely careful and conservative if we could not test. I might add that interpolation between tested designs is done with much higher confidence.

I particularly appreciate your point that the argument in general terms is less convincing than one citing specific examples. It happens that one of our Staff Members has prepared a study of

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Admiral Stansfield Turner

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June 9, 1977

this issue at the invitation of Paul Doty, editor of International Security, which attempts to be as specific as security limitations permits. His draft is in the classification-review process and should be available soon; I would like to send a copy to you at that time. We can, of course, send a classified version, and in any case would appreciate the chance to expand on those aspects that cannot be discussed in the open literature, but which are perhaps even more important than those that can.

Thanks again for your thoughts on this. I do believe that this is an important subject and feel that it deserves serious consideration.

Sincerely yours,

  
John C. Hopkins  
J>Division Leader

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